

**NOTES ON THE
PLATYPALPUS PALLIDIVENTRIS-CURSITANS SPECIES GROUP
(DIPTERA: EMPIDIDAE) FROM CHINA, WITH THE DESCRIPTION
OF A NEW SPECIES AND A KEY¹**

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ABSTRACT: One species of the *Platypalpus pallidiventris-cursitans* species group (Diptera: Empididae) is described as new to science: *Platypalpus beijingensis* sp. n., which represents the first record of the genus *Platypalpus* Macquart in Beijing. The species of the *Platypalpus pallidiventris-cursitans* species group known from China are keyed.

KEY WORDS: Diptera, Empididae, *Platypalpus*, new species, China

The genus *Platypalpus* Macquart is easily identified amongst Palaearctic Tachydromiini by the following features: eyes narrowly separated on face, mid leg raptorial, and the presence of an anal cell (Chvála, 1975; Grootaert and Chvála, 1992). The genus is distributed worldwide with some 250 species in Europe (Chvála and Kovalev, 1989; Grootaert and Chvála, 1992) and about 60 species in the Oriental region (Smith 1975; Yang and Yang 1989, 1990; Saigusa and Yang, 2002). Thirty-three species are known to occur in China.

Beijing is a semi-humid region with a subtemperate climate and belongs to the North China region of the Palaearctic realm. The genus *Platypalpus* is recorded from Beijing for the first time with one new species belonging to the *P. pallidiventris-cursitans* species group. The group is characterized by the mesonotum grayish dusted, humerus with one long bristle, mid femur with one row of pv behind two rows of v and mid tibia with long acute spur (Chvála, 1975; Grootaert and Chvála, 1992). A key to the species of the group from China is given. The specimens in 75 percent alcohol, which were collected in Mentougou by Mr. Xingyue Liu and Ms. Lili Zhang (Beijing), are deposited in the Insect collection of China Agricultural University (CAU), Beijing.

Here we follow Steyskal and Knutson (1981) and Yang and Yang (2004) in treating the dance flies as a single family, the Empididae. Morphological terminology mainly follows Chvála (1975) except the male genitalia follow Sinclair (2000). The following abbreviations are used: acr-acrostichial, dc-dorsocentral, h-humeral, oc-ocellar, npl-notopleural, prsc-prescutellar, psa-postalar, sc-scutellar, v-ventral, vt-vertical.

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***Platypalpus beijingensis* Yang and Yu, NEW SPECIES**
(Figs. 1-5)

Diagnosis: Belonging to *P. pallidiventris-cursitans* group. 1 vt. Antenna black; first flagellomere long conical. Palpus dark brownish yellow, acr biseriate with rows distinctly separated. Mid tibia with long, acute, apical spur.

Description: Male. Body length 3.0 mm, wing length 2.7 mm. Head black with dense pale gray pollen. Eyes narrowly separated; face slightly narrower than frons. Hairs and bristles on head pale. Ocellar tubercle with 2 oc and 2 posterior hairs; 1 vt. Antenna black; scape without dorsal bristles; pedicel with circlet of pale subapical bristles; first flagellomere long conical, 2.1 times longer than wide; arista 2.5 times as long as first flagellomere, black, minutely pubescent. Proboscis shiny black, with sparse pale hairs; palpus dark brownish yellow, with pale hairs and 2 pale apical bristles.

Thorax black with pale gray pollen; sternopleuron with a large shiny black spot. Thorax with pale hairs and bristles, hairs on anterior 2/3 of mesonotum sparse; 1 h curved inward, 2 npl, acr and dc short and hair-like, acr biseriate with rows distinctly separated (distance between two acr rows narrower than that between acr row and uniseriate dc row), 1 prsc (belonging to acr), 1 psa; scutellum with 2 pairs of sc, lateral sc less than 1/2 length of apical sc. Legs brownish yellow; tarsomeres 1-2 with brown tip, tarsomeres 3-5 dark brown. Hairs and bristles on legs pale, but tarsi with some blackish hairs. Fore and mid femora distinctly thickened, fore femur 1.6 times and mid femur 1.8 times as wide as hind femur; mid femur with two rows of very short black inner ventral spines and two rows of long yellow outer v (antero-outer v shorter than postero-outer v); mid tibia with row of black thin v and long, acute, apical spur. Wing hyaline; veins dark yellow; first basal cell shorter than second basal cell, distance between r-m and m-cu longer than length of r-m; nearly straight R4+5 and gently bent M weakly convergent apically. Squama yellow with pale hairs. Halter yellow with brown base.

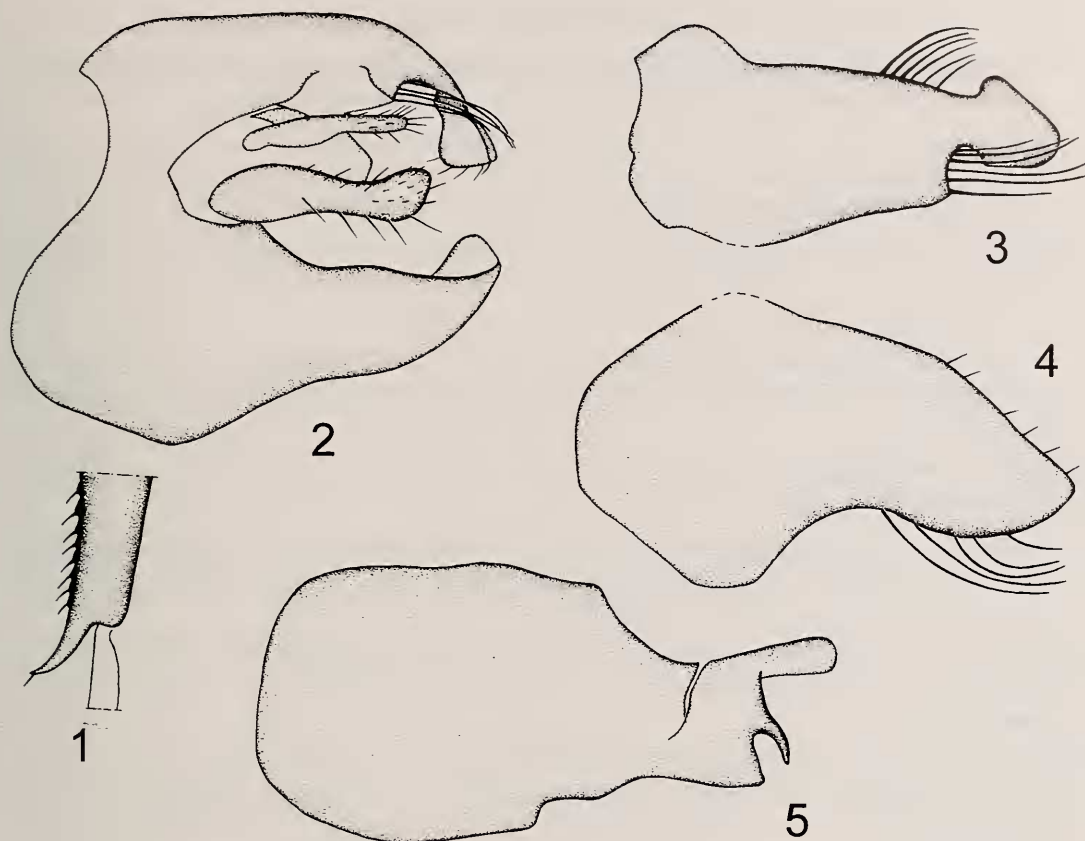
Abdomen shiny black without distinct pollen. Hairs on abdomen pale. Male genitalia (Figs. 2-4): Left epandrial lobe wide with row of 5 long bristles at outer margin, its surstylus not distinctly separated, subtriangular; right epandrial lobe narrow with row of long lateral and apical bristles near surstylus, its surstylus not distinctly separated, short and obtuse apically; left cercus slightly bent, longer and thicker than right cercus, right cercus narrow and nearly straight; hypandrium much longer than wide, narrow apically, with finger-like lateral and hook-like median processes.

Female: Body length 2.7-2.9 mm, wing length 3.2-3.5 mm. Cerci long and finger-like. Otherwise, similar to male.

Type Data: Holotype, male, Beijing, Mentougou, Longmenjian, 2004. VI. 3, Xingyue Liu (CAU). Paratypes: 5 females, Beijing, Mentougou, Longmenjian, 2004. VI. 3, Lili Zhang (CAU).

Etymology: The species is named after the type locality Beijing.

Remarks: The new species is somewhat similar to *P. parvula* Collin from the Russian Far East, but it can be separated from the latter by its larger body size (body length 2.7-3.0 mm), first flagellomere 2.1 times as long as wide, and the mid and hind femora entirely yellow. In *P. parvula*, the body is small-sized (body length 1.25 mm), the first flagellomere is shorter (about 1.25 times longer than wide), and the apical halves of mid and hind femora are dark tawny brown (Collin, 1941).



Figures 1-5. *Platypalpus beijingensis* sp. n., male: 1. apical portion of mid tibia; 2. genitalia, dorsal view; 3. right epandrial lobe; 4. left epandrial lobe; 5. hypandrium.

Key to species of the *pallidiventris-cursitans* group from China

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|-----------------------------------------------------------------------------------------------------------------|---------------------------------------|
| 1. 1 vt; antenna black; Tibet, Henan, Beijing | 2 |
| 2 vt; antenna yellow; Henan..... | <i>P. henanensis</i> Saigusa and Yang |
| 2. Femora not entirely yellow; Tibet | 3 |
| Femora entirely yellow; Henan, Beijing | 4 |
| 3. All coxae yellow; apices of mid and hind femora brownish yellow | <i>P. variegatus</i> Yang and Yang |
| Mid and hind coxae brownish; median portions of fore and mid femora and apical half of hind femur brownish..... | <i>P. xizangenicus</i> Yang et Yang |
| 4. Bristles on head and thorax black; 6-seriate acr; Henan..... | <i>P. neixiangensis</i> Yang et Yang |
| Bristles on head and thorax pale; biseriate acr; Beijing | <i>P. beijingensis</i> sp. nov. |

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